



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/612,835	06/30/2003	Cary Safe	736.003US1	3890
21186	7590	05/16/2005	EXAMINER	
SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A. P.O. BOX 2938 MINNEAPOLIS, MN 55402-0938			BELLINGER, JASON R	
		ART UNIT	PAPER NUMBER	
		3617		
DATE MAILED: 05/16/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/612,835	SAFE ET AL.
	Examiner	Art Unit
	Jason R Bellinger	3617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
 THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 07 February 2005.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-8 and 10-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-8, 10-15 and 17-25 is/are rejected.
- 7) Claim(s) 16 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 07 February 2005 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____

Drawings

1. The drawings were received on 7 February 2005. These drawings are approved.

Claim Objections

2. Claims 17-20 are objected to because of the following informalities: A hyphen (-) should be inserted between the terms "non" and "parallel" in the claims, for grammatical clarity. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

4. Claims 1-8 and 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 25 are indefinite due to the fact that it is unclear what is actually being claimed in lines 10-11 of each claim, and further line 12 of claim 25, by the limitation that a sidewall of the driving lug is "substantially parallel to a *radial* from the central axis of the driver sprocket through the center of the driving portion". It is unclear what "a radial" is.

Claim 25 is further indefinite due to the fact that it is unclear what is actually being claimed by the last two lines of the claim, beginning with the phrase "a line along..."

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claim 25 is rejected under 35 U.S.C. 102(b) as being anticipated by Nagorcka. In Figures 5-6 and 11, Nagorcka shows a vehicle having a track with inner and outer surfaces; the inner surface includes a plurality of driving lugs 11 attached thereto, while the outer surface engages the ground. A driver sprocket 5, having a central axis about which the sprocket 5 rotates, includes a driving portion 7 that includes a center.

As best understood, the sidewalls of the drive lugs 11 make an angle 13 with respect to the inner surface of the track such that when the driving lug 11 engages the driver sprocket 5, the sidewall of the lug 11 presents a surface that is non-parallel to a radial line or plane acting from the central axis of the sprocket 5 through the center of the driving portion 7 of the drive sprocket 5.

As best understood, a line along a surface (namely the engaging surface of an adjacent lug 11) intersects the radial line or plane at a point inside the radius of the track.

Claim Rejections - 35 USC § 103

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. Claims 10-15, 17-20 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagorcka. The track of Nagorcka includes a pitch line positioned between the interior and exterior surface of the track. Nagorcka contains all of the limitations as set forth in paragraph 12 above, but does not specify the angle 13 formed by the first sidewall of the driving lugs 11 with respect to the pitch line of the track is in the range of $[90 - (360/2n)] +/- 5, 3, 2, 1, \text{ or } 0$ degrees {n being the number of driving lugs on the track}.

As shown in Figure 5, the angle 13 formed by the sidewall of the driven lug 11 with respect to the pitch line of the track is clearly less than 90 degrees. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the angle of the first sidewall of the driving lugs 11 at any angle suitable to cause a positive interaction between the driving lug 11 and drive portion 7 of the sprocket 5, for the purpose of preventing slippage between the track and sprocket 5, thus reducing wear of both the track and the sprocket 5.

Nagorcka shows the second sidewall of the driving lug 11 having an angle 13 substantially equal to the first angle 13 of the first sidewall. The angle 13 of the first sidewall forms a line that is non-parallel to a line from the axis of the sprocket 5 through the driving portion 7. This non-parallel line intersects the radial line extending from the

central axis of the sprocket 5 through the driving portion 7 of the sprocket 5 at a point below the pitch line of the track. The non-parallel line also presents a surface to the driving portion 7 of the sprocket that declines toward the surface of the track.

Dependent upon size the angle 13, the non-parallel line could intersect the radial line of the sprocket 5 at a point above the pitch line of the track. The driving portions 7 are substantially equally radially spaced about the sprocket 5.

9. Claims 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagorcka as applied to claims 10-15, 17-20, and 24 above, and further in view of Witt. Nagorcka does not show the driving portions of the sprocket being rotatable sleeves.

Witt teaches the use of a sprocket 12 having driving portions formed of rotatable sleeves 126. Therefore from this teaching, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the sprocket of Nagorcka with rotatable sleeve driving portions as a substitution of equivalent sprocket wheels, in order to reduce the wear of both the driving portions of the sprocket and the driven lugs of the track.

Allowable Subject Matter

10. Claims 1-8 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

11. Claim 16 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

12. Applicant's arguments filed 7 February 2005 have been fully considered but they are not persuasive. The Applicant argues that there is no motivation in Nagorcka to form an angle defined by the first sidewall of the driving lugs 11 with respect to the pitch line of the track within the range of $[90 - (360/2n)] +/- 5, 3, 2, 1, \text{ or } 0$ degrees {n being the number of driving lugs on the track}. However, Figure 5 clearly shows this angle (13) being less than 90 degrees. The extent to which that angle is less than 90 degrees would be dependent upon the number of driving lugs 11 on the track. Therefore, one of ordinary skill in the art would find that it would be obvious that the belt of Nagorcka would have an angle of less than 90 degrees, and that angle would be defined by the number of drive lugs on the belt.

13. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the angle as defined by the equation set forth in paragraph 12 above prevents sliding motion between the driving lugs and the sprocket) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from

the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

It should be noted that the angle shown in Figure 4 of Nagorcka is not the angle referred to in the rejection by the Examiner, which was clearly indicated at angle 13. Figure 4 shows a front view of the drive lugs 11, and thus angle 36 is an angle formed by the lateral sidewall 35 of the lugs 11. This angle 36 and sidewall surface 35 does not affect how the sprocket 5 and drive lugs 11 interact.

14. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The reference is considered to show a track having a drive lug with a sidewall that forms a non-parallel line with a radial plane from the central axis of the sprocket.

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

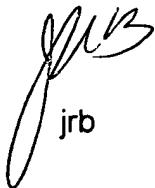
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason R Bellinger whose telephone number is 703-308-6298. The examiner can normally be reached on Mon - Thurs (9:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Morano can be reached on 703-308-0230. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3617

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jason R Bellinger
Examiner
Art Unit 3617



jrb



S. JOSEPH MORANO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600